

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) A method of presenting, at a client terminal, a video program stored in a server linked with the client terminal ~~via transmission path of a limited transmission band width wherein each frame of the video program comprises a basic data portion and at least one level of quality supplement data portions~~, the method comprising the steps, ~~executed by the client terminal~~, of:

preparing a basic data portion and a quality supplement data portion for each frame of the video program in the server, a quality of the video program at each frame played based on a combination of the basic data portion and the quality supplement data portion being higher than that based on only the basic data portion,

and

~~in response to one of play control commands from a user, determining a start position in said video program according to said one of said play control command said play control command including a play, a stop, a head search, a jump forward and a jump backward command~~

~~in response to said a play command from the user in the client terminal, obtaining and using said the basic data portions of the frames of the video program for displaying said needed to play the video program by using the basic data portions of the frames; and~~

~~in response to said a stop command in the client terminal, obtaining and using said at least one level of adding the quality supplement data portions portion of a last displayed frame to the basic data portion of the last displayed frame for displaying to display a quality-enhanced version of said the last displayed frame by using a combination of the basic data portion and the quality supplement data portion.~~

2. (Currently amended) A method as defined in claim 1, further comprising the step of, in response to one of ~~said a head search command, said a jump forward command and said a jump backward commands command~~ in the client terminal for obtaining and using said at least one level of adding the quality supplement data portion

~~portions of a~~ the last displayed frame to the basic data portion of the last displayed frame
~~for displaying a~~ to display the quality-enhanced version of said ~~the last displayed frame~~
by using the combination of the basic data portion and the quality supplement data
portion.

3. (Currently amended) A method as defined in claim 1, further comprising the steps, executed by ~~said~~ the server, of:

preparing a plurality of levels of quality supplement data as each of the quality supplement data portions;

storing ~~said~~ the basic data portions on a tape recording medium; and

storing each level of ~~said at least one level of said~~ the quality supplement data ~~portions~~ on a different tape recording medium.

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4. (Currently amended) A method as defined in claim 3, further comprising the steps, executed by ~~said~~ the server, of:

rotating all of ~~said~~ the tape recording media synchronously in any of a play operation, a head search operation, a jump forward operation ~~and~~ or a jump backward operation; and

in response to a quality supplement data request from ~~said~~ the client terminal, ~~reading said~~ sending at least one level of the quality supplement data ~~portions~~ of ~~a~~ the last displayed frame to the client terminal by reading the level of the quality supplement data while synchronously rotating said the tape recording tape media one by one, wherein the quality supplement data request is prepared in response to the stop command.

5. (Currently amended) A method as defined in claim 1, further comprising the steps, executed by ~~said~~ the server, of:

storing ~~said~~ the basic data portions on a first tape recording medium; and

storing ~~said at least one level of said~~ the quality supplement data portions on a second tape recording medium.

6. (Currently amended) A method as defined in claim 5, further comprising the steps, executed by ~~said~~ the server, of:

rotating both of ~~said~~ the first and second tape recording media synchronously in any of a play operation, a head search operation, a jump forward operation, and a jump backward operation; and

in response to a quality supplement data request from ~~said~~ the client terminal, ~~reading said at least one level of~~ sending the quality supplement data ~~portions~~ portion of a the last displayed frame to the client terminal by reading the quality supplement data portion while synchronously rotating said the first and second tape recording tape media one by one wherein the quality supplement data request is prepared in response to the stop command.

7. (Currently amended) A method as defined in claim 1, further comprising the steps, executed by ~~said~~ the server, of:

storing ~~said~~ the basic data portions and ~~said at least one level of said~~ the quality supplement data portions on two distinct areas of a single recording ~~media~~ medium in a predetermined frame order ~~said a quantity of the~~ quality supplement data portions portion for each frame ~~having a constant data quantity being M (M is a positive constant) times a~~ quantity of the corresponding basic data portion so as to be able to read each quality supplement data portion according to positional information of the corresponding basic data portion; and

in response to a quality supplement data request for ~~a specified~~ the last displayed frame from ~~said~~ the client terminal, reading ~~said~~ the quality supplement data ~~portions~~ portion for ~~said specified~~ the last displayed frame ~~by means of a rule of three sum ,~~ wherein the quality supplement data request being prepared in response to the stop command.

8. (Currently amended) A method as defined in claim 1, further comprising the steps, executed by said the server, of:

storing said the basic data portions and ~~said at least one level of said the~~ quality supplement data portions on two distinct areas of a single recording media medium

keeping a start address of ~~said the~~ quality supplement data portions portion for each frame; and

in response to a quality supplement data request for ~~a specified~~ the last displayed frame from said the client terminal, reading said the quality supplement data portions portion for said specified the last displayed frame by using said the start address of said specified the last displayed frame, wherein the quality supplement data request is prepared in response to a stop command.

9. (Currently amended) A method as defined in claim 1, further comprising the steps, executed by said the server, of:

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storing said the basic data portion for each frame portions and ~~said at least one level of said the~~ quality supplement data portions for said frame just following said basic data portion alternately in a successive areas on a single recording media medium so as to make each quality supplement data portion just follow the corresponding basic data portion;

in response to a basic data request for basic data for said play command from the client terminal reading only said the basic data portions by skipping said the quality supplement data portions, wherein the basic data request is prepared in response to a play command; and

~~after a stop operation responsive to a stop command~~ in response to a quality supplement data request for the last displayed frame from the client terminal reading said at least one level of said sending the quality supplement data portions portion of the last displayed frame to the client terminal by reading the quality supplement data portion just following the stopped position basic data portion of the last displayed frame, wherein the quality supplement data request is prepared in response to the stop command.

10. (Currently amended) A method as defined in claim 1, wherein each frame of said the video program has been coded according to a coding standard, ~~said~~ wherein the program comprising comprises independent frames that can be decoded alone without a the need of other frame data and ~~difference~~ different frames that can not be decoded without other frame data, and wherein ~~using~~ the step of obtaining the basic data portions includes passing the basic data portions to a decoder, and the step of adding the quality supplement data portion includes passing the quality supplement data portion to the decoder.

11. (Currently amended) A method as defined in claim 10, wherein ~~said~~ the coding standard is an H.263 standard, the step of obtaining the basic data portions and ~~wherein said using~~ includes passing the basic data portions to an H.263 decoder, and the step of adding the quality supplement data portion includes passing the quality supplement data portion to the H.263 decoder.

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12. (Currently amended) A method as defined in claim 10, wherein ~~said~~ the coding standard is an MPEG standard, the step of obtaining the basic data portions and ~~wherein said using~~ includes passing the basic data portions to an MPEG decoder, and the step of adding the quality supplement data portion includes passing the quality supplement data portion to the MPEG decoder.

13. (Currently amended) A method of presenting, at a client terminal, a multimedia program stored on a server wherein the multimedia program includes a video object, each frame of the video object comprising a basic data portion and at least one level of detailed data portions, the method comprising the steps of:

in response to one of play control commands from a user, determining a time count in said multimedia program according to one of said play control commands, said play control commands including a play, a stop, a head search, a jump forward and a jump backward command;

in response to one of said head search, said jump forward and said jump backward commands issued during a stop period, determining whether there is a video object to be displayed at said time count in said multimedia program; and

in the event there is said video object to be displayed at said time count in said multimedia program, obtaining said at least one level of quality supplement data portions for a first frame to be displayed in the next play operation for displaying a quality-enhanced version of said first frame to be displayed.

14. (Previously submitted) A method as defined in claim 13, further comprising the steps, executed by said client terminal, of:

in response to said stop command, determining whether there is a video object to be displayed at said time count in said multimedia program, and

in the event there is said video object to be displayed at said time count, obtaining said at least one level of quality supplement data portions for a first frame to be displayed in a next play operation for displaying a quality enhanced version of said first frame to be displayed.

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15. (Currently amended) A method as defined in claim 13, further comprising the steps o, executed by said client terminal, of

in response to said stop command ~~making a test to see~~ testing to determine if there ~~is~~ are multimedia objects which are other than video objects and each comprise a basic data and quality supplement data and which are displayed at said time count in said multimedia program; and

for each said found multimedia objects, obtaining said quality supplement data for displaying a quality enhanced version of said each object.

16. (Currently amended) A method as defined in claim 15, further comprising the steps, executed by said client terminal, of

in response to said stop command, ~~making a test to see~~ testing to determine if there ~~are is~~ multimedia objects ~~which are~~ other than video objects and each comprise basic data and quality supplement data and which are to be displayed later, and

for each of said found multimedia objects, obtaining said basic data in advance.

17. (Currently amended) A method as defined in claim 15, further comprising the steps, executed by said client terminal, of

in response to said stop command, ~~making a test to see if there is~~ determining if there are multimedia objects which are other than video objects, ~~and each~~ which comprise basic data and quality supplement data and which are adapted to be displayed at a later time ~~displayed later~~, and

for each of said found multimedia objects, obtaining said basic data in advance.

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18. (Currently amended) A terminal for presenting a video program stored in a remote server connected therewith, ~~a band limited transmission path wherein each frame of the video program comprises a basic data portion and at least one level of quality supplement data portions~~ the terminal comprising;

~~means responsive to one of play control commands from a user, for determining a start position in said video program according to said one of said play control command, said play control command including a play, a stop a head search, a jump forward and a jump backward command,~~

obtaining means, in responsive to said a play command ~~from the user~~, for obtaining ~~and using said~~ basic data portions of frames of the video program for playing said to play the video program by using the basic data portions of the frames, one basic data portion and a quality supplement data portion being prepared in the remote server for each frame of the video program, a quality of the video program at each frame played by a combination of the basic data portion and the quality supplement data portion being higher than that played by using only the basic data portion; and

adding means, responsive to ~~said a~~ stop command, for ~~obtaining and using said at least one level of~~ adding the quality supplement data ~~portions~~ portion of a last displayed frame to the basic data portion of the last displayed frame ~~for displaying to display~~ a quality-enhanced version of ~~said the~~ last displayed frame by using a combination of the basic data portion and the quality supplement data portion.

19. (Currently amended) A terminal as defined in claim 18, further comprising means, responsive to one of ~~said a~~ head search command, ~~said a~~ jump forward command and ~~said a~~ jump backward ~~commands~~ command for ~~obtaining and using said at least one level of~~ adding the quality supplement data ~~portions~~ portion of a the last displayed frame to the basic data portion of the last displayed frame ~~for displaying to display~~ a the quality-enhanced version of ~~said the~~ last displayed frame by using the combination of the basic data portion and the quality supplement data portion.

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20. (Currently amended) A terminal ~~of~~ for presenting a multimedia program stored in a remote server linked therewith via a band-limited transmission path wherein the multimedia program includes a video object, each frame of the video object comprising a basic data portion and at least one level of detailed data portions, the terminal comprising:

means, responsive to one of play control commands from a user, for determining a time count in said multimedia program according to said one of said play control ~~commands~~ , said play control ~~commands~~ including a play, a stop, a head search, a jump forward and a jump backward command;

means, responsive to one of said head search, said jump forward and said jump backward commands issued during a stop period, for determining whether there is a video object to be displayed at said time count in said multimedia program; and

means, operative in the event there is said video object to be displayed at said time count in said multimedia program, for obtaining said at least one level of quality

supplement data portions for a first frame to be displayed in a next play operation for displaying a quality enhanced version of said first frame to be displayed.

21. (Previously submitted) A terminal as defined in claim 20, further comprising:

means responsive to said stop command, for determining whether there is a video object to be displayed at said time count in said multimedia program; and

means, operative in the event there is said video object to be displayed at said time count, for obtaining said at least one level of quality supplement data portions for a first frame to be displayed in a next play operation for displaying a quality enhanced version of said first frame to be displayed.

22. (Currently amended) A terminal as defined in claim 20, further comprising means responsive to said stop command, for finding-multimedia objects which are other than video objects, ~~and~~ wherein each comprises basic data and quality supplement data and which are adapted to be displayed at said time count in said multimedia program, and

means, operative for each of said found multimedia objects, for obtaining said quality supplement data for displaying a quality enhanced version of said each object.

23. (Currently amended) A terminal as defined in claim 20, further comprising:

means, ~~response~~ responsive to said stop command, for finding multimedia objects ~~which~~ that are other than video objects, wherein ~~and~~ each comprises basic data and quality supplement data and ~~which~~ that are to be displayed later; and

means, operative for each of said found multimedia objects, for obtaining said basic data in advance.

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24. (Currently amended) A terminal as claimed in claim 22, further comprising:

means, ~~response~~ responsive to said stop command, for finding at least one multimedia objects which are object that is other than a video objects and each that comprise basic data and quality supplement data and ~~which that~~ are to be displayed later, and

means, operative for each of said found multimedia objects for obtaining said basic data in advance.

25. (Currently amended) A server for ~~servicing~~ sending a video program to a plurality of client terminals ~~linked via a band limited transmission path, each frame of the video program comprising a basic data portion and at least one level of quality supplement data portion,~~ the server comprising:

means for preparing a basic data portion and a plurality of levels of quality supplement data for each frame of the video program;

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means for storing said the basic data portions for the frames of the video program on a tape recording medium; and

means for storing each level of said at least level of said pieces of quality supplement data portions of each level for the frames of the video program on a different tape recording medium, wherein the quality of the video program at each frame that is played by a combination of the basic data portion and each level of quality supplement data is higher than that played by using only the basic data portion;

means for rotating all of the tape recording media synchronously in any of a play operation, a head search operation, a jump forward operation and a jump backward operation; and

means, responsive to a quality supplement data request from a client terminal, for reading the levels of quality supplement data of a last displayed frame while synchronously rotating the tape recording media, and sending the levels of quality supplement data to the client terminal one by one to add each level of quality supplement

data to the basic data portion of the last displayed frame and to gradually increase the quality of the video program at the last displayed frame played by a combination of the basic data portion and one level of quality supplement data.

Claim 26 is cancelled.

27. (Currently amended) A server for ~~serv~~ing sending a video program to a plurality of client terminals ~~linked via a band limited transmission path, each frame of the video program comprising a basic data portion and at least one level of quality supplement data portion~~, the server comprising:

means for storing said a plurality of basic data portions for frames of the video program on a first tape recording medium;

means for storing said ~~at least one level of said~~ a plurality of quality supplement data portions for the frames of the video program on a second tape recording medium, wherein the quality of the video program at each frame played by a combination of the basic data portion and the quality supplement data portion is higher than that played by using only the basic data portion;

means for rotating both of the first and second tape recording media synchronously in any of a play operation, a head search operation, a jump forward operation and a jump backward operation; and

means, responsive to a quality supplement data request from each client terminal, for reading the quality supplement data portion of a last displayed frame while synchronously rotating the first and second tape recording media and sending the quality supplement data portion to the client terminal to add the quality supplement data portion to the basic data portion of the last displayed frame and to heighten a quality of the video program at the last displayed frame.

Claim 28 is cancelled,

29. (Currently amended) A server for ~~servicing~~ sending a video program to a plurality of client terminals linked via a band limited transmission path ~~each frame of the video program comprising a basic data portion and at least one level of quality supplement data portion~~, the server comprising:

means for storing said a plurality of basic data portions for frames of the video program and ~~said at least one level of said~~ a plurality of quality supplement data portions for the frames of the video program on two distinct areas of a single recording ~~media~~ medium in a predetermined frame order; said

wherein the quality of the video program of each frame played by a combination of the basic data portion and the quality supplement data portion being is higher than that played by using only the basic data portion and

wherein a quantity of the quality supplement data ~~portions~~ portion for each frame having a constant data quantity being M (M is a positive constant) times a quantity of the corresponding basic data portion so as to be able to read each quality supplement data portion according to positional information of the corresponding basic data portion; and

means, responsive to a quality supplement data request for ~~a specified~~ a last displayed frame from ~~said each~~ each client terminal, reading ~~said the~~ the quality supplement data ~~portions~~ portion for ~~said specified~~ the last displayed frame ~~by means of a rule of three sum~~ and sending the quality supplement data portion to the client terminal to add the quality supplement data portion to the basic data portion of the last displayed frame and to increase the quality of the video program at the last displayed frame.

30. (Currently amended) A server for ~~servicing~~ sending a video program to a plurality of client terminals linked via a band limited transmission path, ~~each frame of the video program comprising a basic data portion and at least one level of quality supplement data portion~~ the server comprising:

means for storing said a plurality of basic data portions for frames of the video program and ~~said at least one level of a~~ plurality of quality supplement data portions for the frames of the video program on two distinct areas of a single recording ~~media~~ medium, wherein

the quality of the video program at each frame played by a combination of the basic data portion and the quality supplement data portion is higher than that played by using only the basic data portion;

means for keeping a start address of ~~said~~ the quality supplement data portions portion for each frame; and

means, responsive to a quality supplement data request for a specified frame from ~~said~~ each client terminal, for reading ~~said~~ the quality supplement data portions portion for ~~said~~ specified the specified frame by using ~~said~~ the start address of ~~said~~ specified the specified frame and sending the quality supplement data portion to the client terminal to add the quality supplement data portion to the basic data portion of the specified frame and to increase the quality of the video program at the specified frame.

31. (Currently amended) A server for ~~servicing~~ sending a video program to a plurality of client terminals linked via a band limited transmission path, ~~each frame of the video program comprising a basic data portion and at least one level of quality supplement data portion~~, the server comprising:

means for preparing a basic data portion and a quality supplement data portion for each frame of the video program;

means for storing ~~said~~ the basic data ~~portion for each frame~~ portions and ~~said~~ at least one level of ~~said~~ the quality supplement data ~~portions for said frame~~ just following ~~said~~ alternately in a successive area on a single recording media medium so as to make each quality supplement data portion just follow the corresponding basic data portion;

means, responsive to a basic data request ~~for basic data for said play command from each client terminal~~, for reading only ~~said~~ the basic data portions by skipping ~~said~~ the quality supplement data portions; and

means, operative after a stop operation responsive to a stop request, for reading ~~said~~ at least one level of ~~said~~ the quality supplement data ~~portions portion of a specified frame just following the stopped position~~ basic data portion read in response to the stop request and sending the quality supplement data portion to the client terminal to add the

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quality supplement data portion to the basic data portion and to thereby increase the quality of the video program at the specified frame.

32. (Currently amended) A terminal as defined in claim 18, wherein each frame of ~~said~~ the video program has been coded according to a coding standard, ~~said~~ and comprising a program comprising independent frames that can be decoded alone without a need of other frame data and ~~difference~~ different frames that can not be decoded without other frame data, and ~~wherein said obtaining and using means each~~ and wherein the obtaining means includes means for passing the basic data portions to a decoder, and the adding means includes means for passing the quality supplement data portion to the decoder.

33. (Currently amended) A terminal as defined in claim 32, wherein ~~said~~ the coding standard is an H.263 standard, ~~and where said obtaining and using means each~~ the obtaining means ~~include~~ includes means for passing the basic data portions to an H.263 decoder, and the adding means includes means for passing the quality supplement data portion to the H.263 decoder.

34. (Currently amended) A terminal as defined in claim 32, wherein ~~said~~ the coding standard is an MPEG standard, ~~and wherein said obtaining and using means each~~ the obtaining means ~~include~~ includes means for passing the basic data portions to an MPEG decoder, and the adding means includes means for passing the quality supplement data portion to the MPEG decoder.

35. (New) A method as defined in claim 1, wherein the step of preparing the basic data portion includes the step of preparing a plurality of levels of quality supplement data as each of the quality supplement data portions, and

the step of adding the quality supplement data portion includes the step of adding the levels of quality supplement data of the last played frame to the basic data portion one by one in order of increasing the displayed quality level of the last played frame.

36. (New) A method as defined in claim 1, wherein the step of adding the quality supplement data portion includes the step of determining the last played frame according to an input timing of the stop command.

37. (New) A terminal as defined in claim 18, further comprising:

means for receiving a plurality of levels of quality supplement data prepared in a remote server as each of the quality supplement data portions; and

means for adding the levels of quality supplement data of the last played frame to the basic data portion one by one in order of increasing the displayed quality level of the last played frame.

38. (New) A terminal as defined in claim 18, further comprising:

means for determining the last played frame according to an input timing of the stop command.

39. (New) A server as defined in claim 27 wherein said supplement data portion comprises a plurality of levels of quality supplement data, and each level of quality supplement data is used in sequence to gradually increase the quality of the video program at the last displayed frame played by a combination of the basic data portion and the level of quality supplement data.

40. (New) A server as defined in claim 29, wherein each quality supplement data portion comprises a plurality of levels of quality supplement data, and each level of

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quality supplement data is used sequentially to gradually increase the quality of the video program at the last displayed frame played by a combination of the basic data portion and the level of quality supplement data.

41. (New) A server as defined in claim 30 wherein said quality supplement data portion comprises of a plurality of levels of quality supplement data, and each level of quality supplement data is used to sequentially gradually increase the quality of the video program at the specified frame played by a combination of the basic data portion and the level of quality supplement data.

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42. (New) A server as defined in claim 31, wherein each quality supplement data portion comprises of a plurality of levels of quality supplement data, and each level of quality supplement data is used to sequentially gradually increase the quality of the video program at the specified frame played by a combination of the basic data portion and the level of quality supplement data.
